



## Nutri-Facts Cholesterol



### Introduction

Because of its reputation as a risk factor for heart disease, people tend to think of cholesterol only in negative terms. Cholesterol is needed by the body for many important functions such as making cell membranes and producing hormones.

Not all cholesterol is beneficial. Heart disease and strokes kill most American men and women today. Cholesterol may narrow arteries making blood vessels harder for blood to circulate properly. The American Heart Association recommends having cholesterol tested every 5 years after the age of 20 years. The Navy routinely checks cholesterol levels in all active duty members at the periodic and separation physical. Desirable levels of total cholesterol are less than 200 mg/dl.

### What are the LDL's and HDL's?

- Low-density lipoprotein (LDL). This cholesterol is sometimes called "bad" cholesterol because it transports cholesterol to sites throughout your body, where it's either deposited or used to repair cell membranes. Optimal levels of LDL cholesterol are less than 100 mg/dl.
- High-density lipoprotein (HDL). This cholesterol is sometimes referred to as "good" cholesterol because it helps clear excess cholesterol from your body. In the average man, HDL cholesterol levels range from 40 to 50 mg/dL. In the average woman, they range from 50 to 60 mg/dL. HDL cholesterol that's less than 40 mg/dL is low. Smoking, being overweight and being sedentary can all result in lower HDL cholesterol. If you have low HDL cholesterol, you can help raise it by:
  - Not smoking
  - Losing weight (or maintaining a healthy weight)
  - Being physically active for at least 30-60 minutes a day on most or all days of the week

### What dietary guidelines are recommended to lower cholesterol?

- **Limit meat.** 4-6 oz per day is all that is needed for most adults.
- **Trim all fat and skins prior to cooking.** Remove poultry skin before eating as long as it is not fried.
- **Avoid fried foods,** especially foods that are deep fat fried.
- **Eat foods with soluble fiber.** As part of a low-fat diet, soluble fiber can help lower your total blood cholesterol level. Foods high in soluble fiber include oat bran, oatmeal, beans, peas, rice bran, barley, citrus fruits, strawberries and apple pulp.

- **Limit high fat dairy foods.** Use low fat natural cheese, skim milk cheese and low fat cottage cheese. Opt for low fat cream cheese, yogurt, sour cream and ice cream.
- **Use skim milk or 1% milk.** If you are using whole milk, gradually wean yourself to 2% then to 1% or skim milk.
- **Limit creamy salad dressings.** (bleu cheese, buttermilk) Use low fat ranch, peppercorn, thousand island and French dressings.
- **Eat more nuts and seeds.** These foods are cholesterol-free, but are naturally high in fat and should be limited especially if weight reduction is the goal.
- **Eat more fish.** Some fish — particularly fatty types prevalent in cold water, such as salmon, mackerel and herring — contain high amounts of a unique type of polyunsaturated fat called omega-3 fatty acids. Omega-3s may lower your level of triglycerides.
- **Consider soy products.** Soy compounds called isoflavones act like human hormones that regulate cholesterol levels. Eating soy proteins can reduce your levels of total cholesterol, LDL cholesterol and triglycerides. Eating soy may also raise your level of HDL cholesterol, which may protect you against heart disease.
- **Drink alcohol in moderation, if at all.** Moderate consumption of alcohol may raise your level of HDL cholesterol. The best advice is to drink in moderation, if you drink at all. Limit alcohol to one drink daily for women and no more than two drinks daily for men.
- **Reduce sugar intake.** This is a way of lowering triglyceride levels. Ideally, your triglyceride levels should be lower than 150 mg/dL. Limit beverages made with high fructose corn syrups, desserts high in sugar and candy.

If you suspect you have high cholesterol, visit your doctor. Lifestyle changes are the first steps you can take to improve your blood levels of cholesterol. These include changes in diet, regular exercise and avoiding smoking. If you've made these important lifestyle changes and your total cholesterol — especially your level of LDL cholesterol — remains high, your doctor may recommend prescription medication.

For more information on this and other health and wellness topics, visit Navy Knowledge Online (NKO) at <http://www.nko.navy.mil> or the Navy Environmental Health Center (NEHC) at <http://www-nehc.med.navy.mil/hp>.